

#### ARISTOTLE:

All Risk
Integrated
System TOwards
Trans-boundary
hoListic Earlywarning





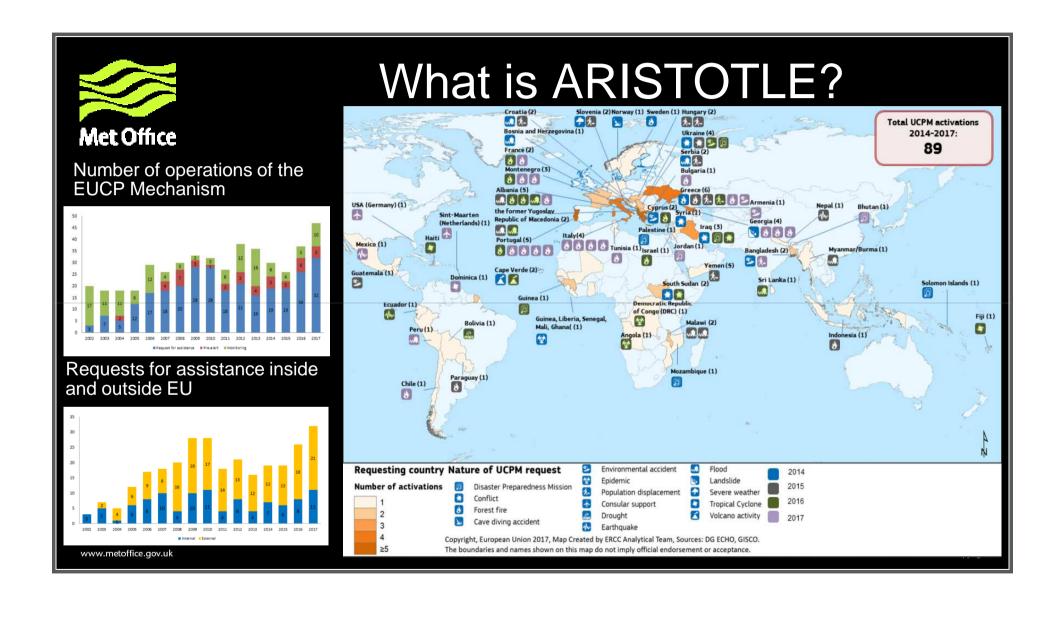
### What is ARISTOTLE?

#### **Emergency Response Coordination Centre (ERCC)**



The Emergency Response Coordination Centre supports and coordinates a wide range of prevention and preparedness activities, from awareness-raising to field exercises simulating emergency response. © Ezequiel Scagnetti

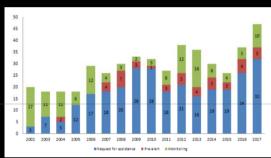
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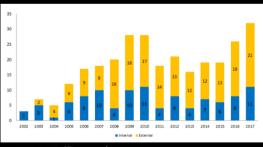


# What is ARISTOTLE?

Number of operations of the EUCP Mechanism



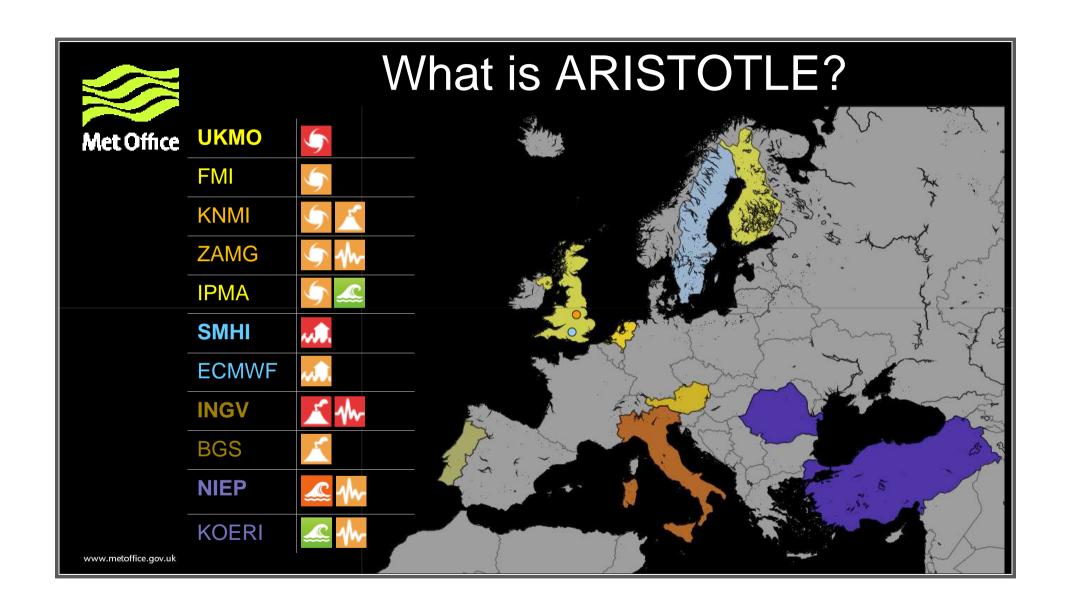
Requests for assistance inside and outside EU

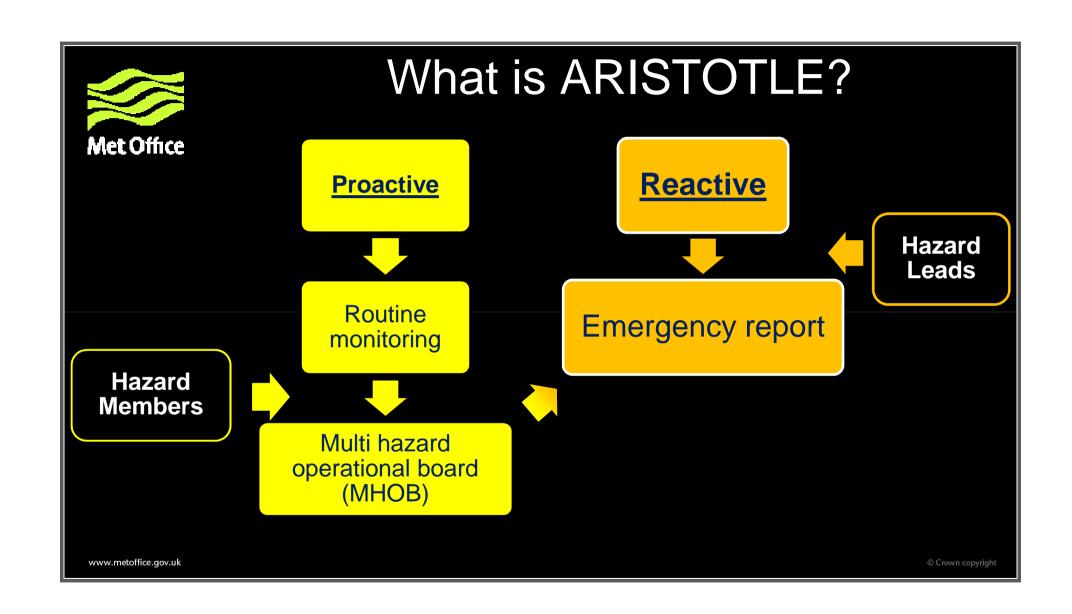


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32 activations in 2017



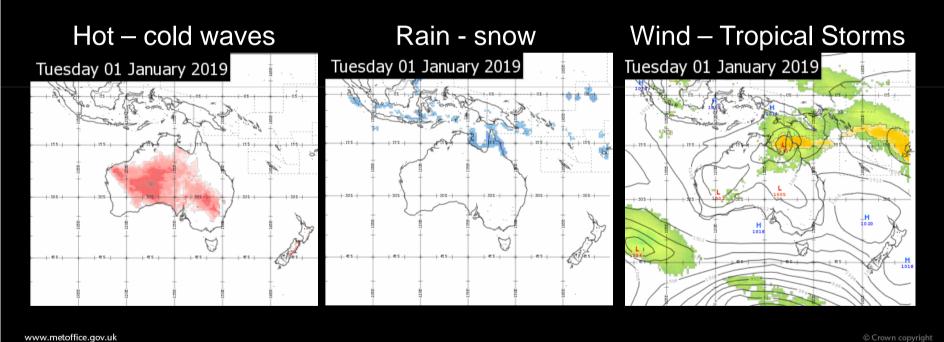


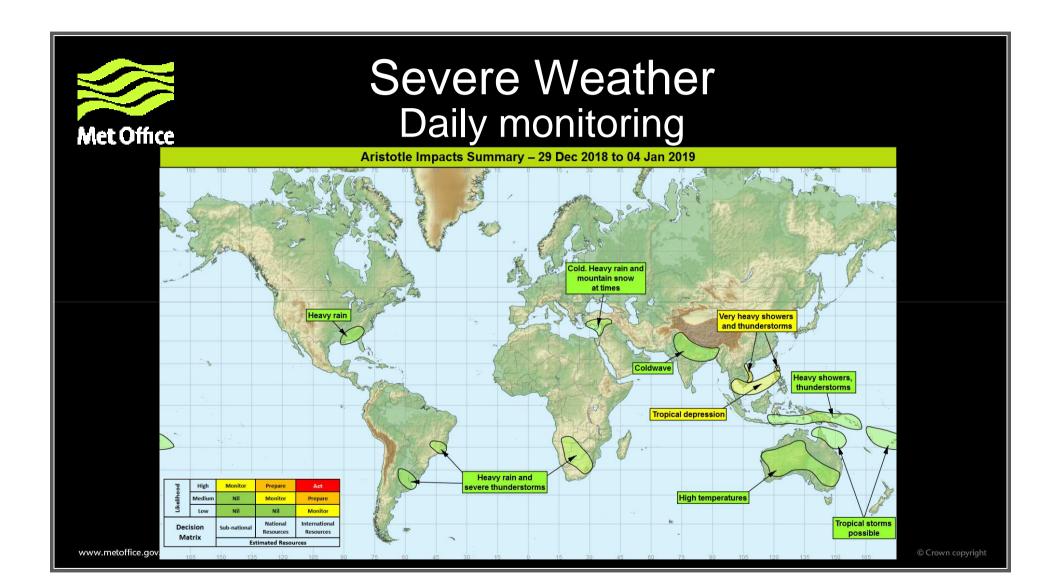




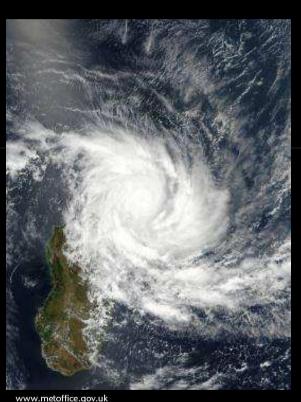
# Severe Weather Daily monitoring

Multi-model ensemble based impact forecasts









- Intense Tropical Cyclone affected NE Madagascar early March 2017
- Sustained winds 110kt (203km/hr)
- 186mm rain recorded in 6hrs
- The NE sustained significant damage to housing and agriculture
- Antalaha port was inaccessible with more than half the City's homes destroyed
- Severe flooding (up to 4 meters) in the NE, with 2 schools destroyed
- Humanitarian support was requested but was managed by in-country teams.

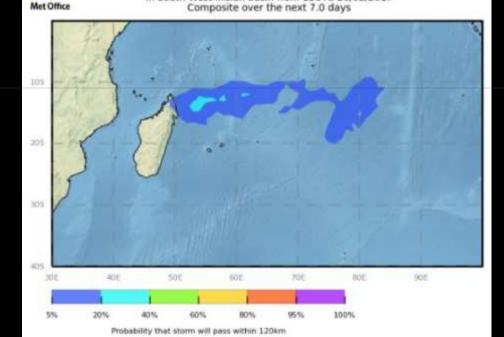


Multi-model forecast of Tropical Storm Activity

9 days before landfall



Severe Weather Hazard Group notified



Multimodel: Forecast tropical storm activity (existing and forming storms) in South West Indian basin from 12UTC 26/02/2017

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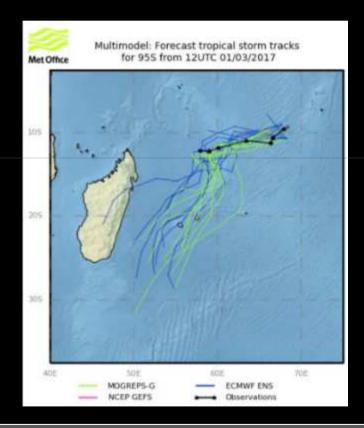
Multi-model forecast Tropical Storm Tracks

6 days before landfall



Severe Weather Hazard Group notified

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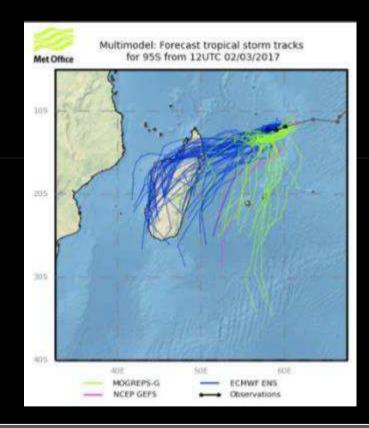
Multi-model forecast Tropical Storm Tracks

5 days before landfall



Severe Weather Hazard Group pre-alerts

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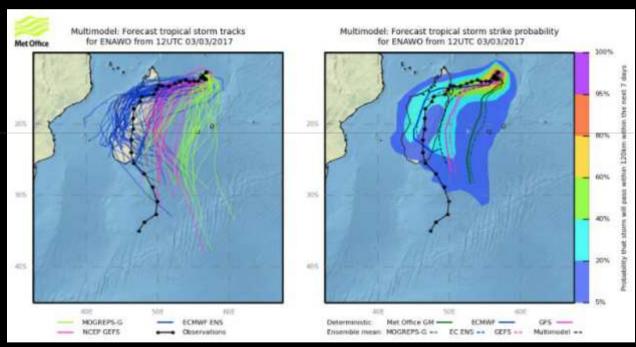
## Severe Weather Case Study: Tropical Cyclone Enawo – March 2017

Multi-model forecast Tropical Storm Tracks (left) and Strike Probability (right)

#### 4 days before landfall



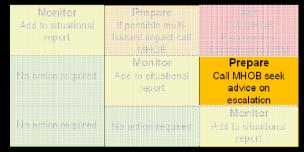
ERCC notified, decline EMR



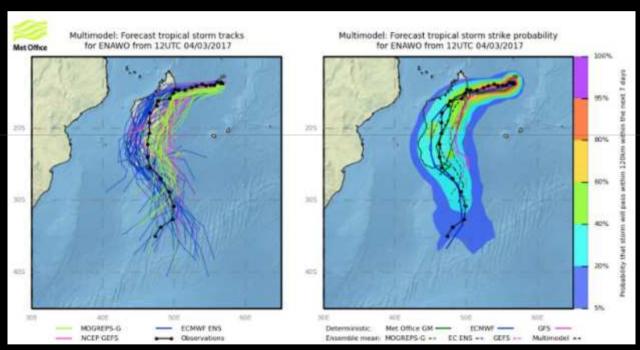


Multi-model forecast Tropical Storm Tracks (left) and Strike Probability (right)

#### 3 days before landfall



ERCC re-notified, trigger EMR

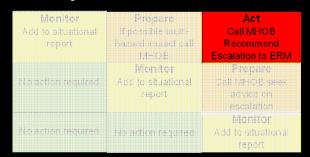


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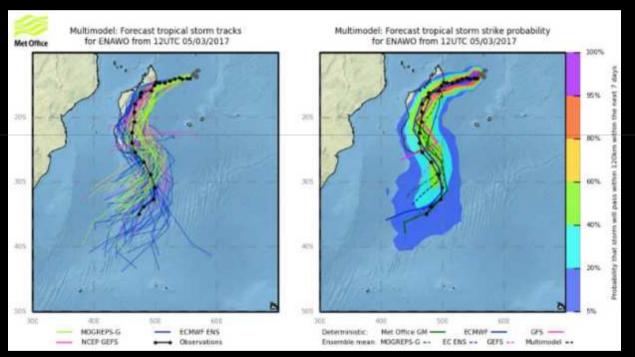


Multi-model forecast Tropical Storm Tracks (left) and Strike Probability (right)

#### 2 days before landfall



**ERCC** re-activate



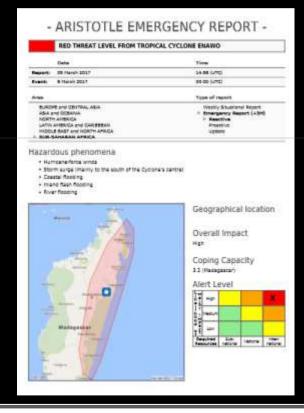
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Multi-hazard report issued to ERCC

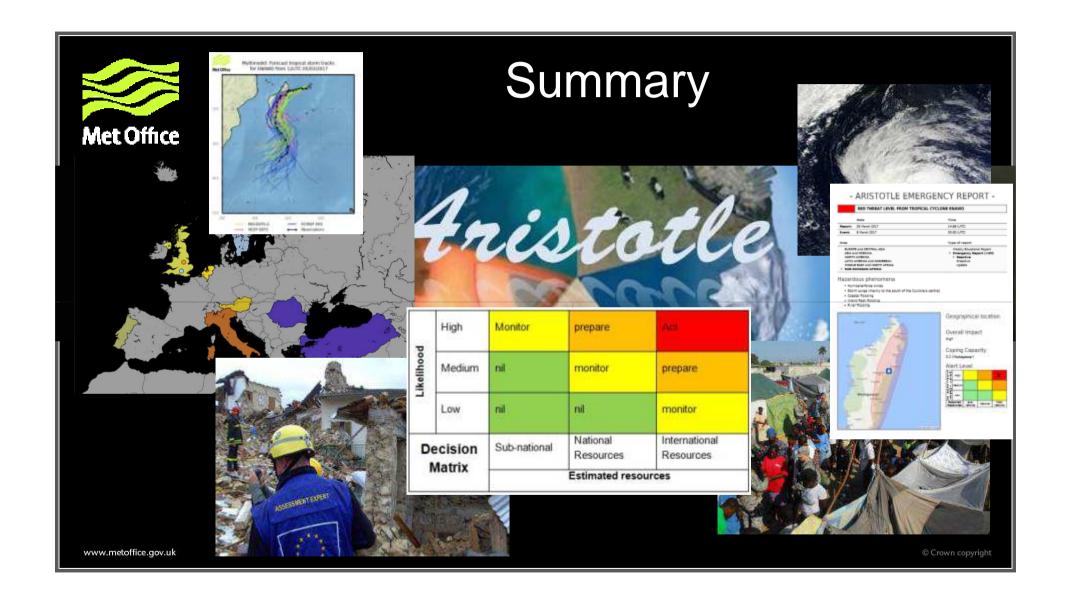
Focus on impacts across NE Madagascar

Report updated next day 24 hours ahead of landfall



SEVERE WEATHER HAZARD The langua mades runs have some in line with the made of the Spolane and we have more confidence that it will water landfull in the NE of Madessacon stoke to live to the earth of Amissialist, it is then finds to track the mounts Managers Australia before turning many \$50% and they \$, bringing terronical rain to large parts of \$ Flerie 1: Latest information from us Reprise Previous the exception and of the Traplet Colors properties for a pearwise race to efficie most of the NE cooks to the equit of the Customer's control, with assess flooding. eavering descriptions to observe acromumbion. There is likely to be mishagined temporally recorded with \$250.780 mm. vin por the event, people; mane leasily. The winds of the Cyclemy will quinkly reduce onto it makes landful, towerer during the first day (containly through the letter part of Monday and through fluoriday) the winds will be humann finns arms IE Stategasser, with very strong arms sand nung as office E game into University and to a losser commit. Thursday as the remnance of the syriams made & The communities make accordy hit will be the regions in the hit, Sove and Andersins's mitally, then are Managers, Those registre are describlifium care game of the highest coints of the lebest as higher rain was source lands day along with after domagne due to wind and rain. As the explane making 5 the regions in the 50 will also be effected by feeding. Including Vessions Albertnery, These are law lying regions with relatively high SECURE AND DESCRIPTION OF THE PROPERTY OF THE There is also a contact place finding in Nasagassar's property Day Teampains. The is a second sity in the E armound 2000 miles to the E of levelled. The whole area is durin factories a year of though it is possible or the strongost vinds, it is likely to recieve silet of reinfall, at least 185mm, passibly 55mm, as Reading is likely, there a star a risk that the starm purposed will effect this for E and therefore there may be executed flooring as and as river and surface water Reading, is will be wantly maintaining for damageon as this is the second largest slip with many tioned Problems of New Pools are well as a larger presupption.

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# Any questions?

Many thanks to: Jenny Rourke, Gavin Iley, Anton Muscat, the ERCC and all of the many ARISTOTLE members

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